

REMARKS

By the above amendment in the accompanying RCE, independent claims 5 and 11 have been amended to clarify the features as illustrated in Figs. 1 and 7 - 11 which are described as plan views showing a representative part of an embodiment of the image display device according to the present invention, and new dependent claims 20 - 23 have been presented. As shown in Fig. 1, for example, and described at page 12 et. seq. of the specification, the drain signal lines DL are arranged in a plane of the substrate and extend in the manner indicated. Further, data transfer lines DTL are also arranged in the plane of the signal lines DL, noting that Fig. 1 illustrates the signal lines DL in both a left side group and a right side group indicated as DL(L) and DL(R), respectively. Furthermore, in accordance with the present invention, there is a gap formed between a drain signal line DA which is arranged at the side of the drain signal line DL group, which is connected to each semiconductor device as a group, and a data transfer signal line DTL which is arranged at the side of the data transfer signal line DTL group as described in the paragraph bridging pages 13 and 14 of the specification. As described at page 14 of the specification, in this case, a large difference exists between a length of each drain signal line DL and the length of each data transfer line DTL and a quantity of a charge that its charged to the drain signal line DL group, due to static electricity and the quantity of the charge that is charged to the data transfer signal line DTL group due to static electricity will differ greatly. Therefore, a spark SP, as shown in Fig. 4, is generated due to the static electricity between the drain signal line DL and the data transfer signal line DTL which are arranged adjacent to each other in the same plane, so that either one of the signal lines may be disconnected. As further described at page 14 of the specification, in accordance with the present invention, in the gap between the

data line DL and the data transfer signal line DTL a dummy line DLY is formed in the plane of the signal line DL and the data transfer signal line DTL between the signal lines and the data transfer signal lines and the dummy line is formed so as to extend along the signal line, as clearly illustrated in Fig. 1 and Figs. 7 - 11 of the drawings. By utilization of the dummy line DLY arranged between the signal lines DL and the data transfer lines DTL, a spark can be generated between the signal line DL and the dummy line DLY so that disconnection of the signal line DL can be prevented and further, a spark can be generated between the data transfer signal line DTL and the dummy line DLY so that disconnection of the data transfer signal line DTL can be prevented. By the present amendment, the claims have been amended to clarify the feature that the dummy line is arranged in the plane of the signal lines and the data transfer signal lines or the signal lines and the counter voltage signal lines and between the aforementioned lines while extending along the signal lines so that all lines are arranged in the same plane, as illustrated in the drawings. Applicants submit that such features of the independent and dependent claims are not disclosed or taught in the cited art.

Also, by the present amendment, new dependent claims 20 - 23 have been presented directed to the structural arrangement as illustrated in Figs. 9 and 10, for example, wherein the dummy line includes a first dummy line part DLY1 and a second dummy line part DLY2 and the first dummy line part is connected with the signal lines DL which are arranged adjacent to the first dummy line part DLY1, and the second dummy line part DLY2 is connected with the first dummy line part DLY1. Furthermore, as illustrated in Figs. 9 and 10, the connection between the first dummy line part DLY1 and the signal lines DL and the connection between the second dummy line part DLY2 and the first dummy line part DLY1 are formed into a seal

material SL as illustrated in Fig. 9 of the drawings, and as recited in new dependent claim 21. Claim 22 recites the feature that the connection between the first dummy line part and the signal lines are formed into a seal material which seals a pair of the substrates, and the connection between the first dummy line part and the second dummy line part is formed at a position where the pair of substrates overlap each other, as illustrated in Fig. 10 of the drawings. New dependent claim 23, which depends from claim 11, recites the feature as illustrated in Fig. 11 that a contact hole CH is formed in a region of the counter voltage signal line CL, and the contact hole connects the counter electrode CT to the counter voltage signal line CL, as described at pages 17 and 18 of the specification. Applicants submit that these features which are supported by the specification and drawings of this application are not disclosed or taught in the cited art, as will become clear from the following discussion.

The rejection of claims 2, 4 - 9, 13 - 15 and 17 under 35 USC 103(a) as being unpatentable over Kuwashiro (Patent No. US 5,945,984) in view of Ogawa (Patent No. US 6,680,759); the rejection of claims 11, 18 and 19 under 35 USC 103(a) as being unpatentable over Moon et al (Patent No. US 6,864,937) in view of Ogawa (Patent No. US 6,680,759); the rejection of claims 10 and 12 under 35 USC 103(a) as being unpatentable over Kuwashiro (Patent No. US 5,945,984) in view of Ogawa (Patent No. US 6,680,759) and further in view of Hayakawa et al (Patent No. US 6,172,732); and the rejection of claim 16 under 35 USC 103(a) as being unpatentable over Moon et al (Patent No. US 6,864,937) in view of Ogawa (Patent No. US 6,680,759) and further in view of Hayakawa et al (Patent No. US 6,172,732); such rejections are traversed insofar as they are applicable to the claims, as amended.

As to the requirements to support a rejection under 35 USC 103, As to the requirements to support a rejection under 35 USC 103, reference is made to the decision of In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988), wherein the court pointed out that the PTO has the burden under '103 to establish a prima facie case of obviousness and can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. As noted by the court, whether a particular combination might be "obvious to try" is not a legitimate test of patentability and obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. As further noted by the court, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

Turning first to Kuwashiro, irrespective of the contentions by the Examiner, as described in connection with Fig. 3 of this patent, the X printed-wiring board 701 is composed of a rigid multilayer board and has a surface-layer sheet 711, on which data pads 721 and dummy pads 731 are arranged, and a second board 781 arranged below the board or sheet 711, which second board includes data interconnections 783 thereon, wherein a first sheet 751, which is mounted between the surface layer sheet 711 of the X printed-wiring board 701 and the second board 781, and is equipped with interconnections 753 for electrically connecting the dummy pads 731 located on the surface-layer sheet 711 with one of the data interconnections 783 located on the second board 781. Thus, it is readily apparent that assuming arguendo, that the data transfer signal lines are represented by 783, as contended by the Examiner, and the signal lines are apparently formed on the

surface layer 711 of the X printed-wiring board 701, it is readily apparent that the signal lines and the data transfer signal lines are formed in a different plane from one another and are not arranged in the same plane. Likewise, it is not apparent what a dummy line is, although the Examiner refers to a dummy terminal 651, which apparently is part of the X-TAB chips 601, which also appears to be in a different plane. Thus, applicants submit that irrespective of the Examiner's contentions, Kuwashiro does not disclose or teach a dummy line arranged in the plane of the signal lines and the data transfer lines and formed between the signal lines and the data transfer signal lines, with the dummy line being formed so as to extend along the signal line, as recited in claim 5 and the dependent claims thereof. Thus, applicants submit that claim 5 and its dependent claims patentably distinguish over Kuwashiro in the sense of 35 USC 103 and should be considered allowable thereover.

The Examiner has recognized that Kuwashiro does not teach the dummy terminal is a line and where the dummy line is formed so as to extend along the signal line. However, the Examiner refers to Ogawa as teaching a dummy terminal including a dummy line wherein the dummy line is formed so as to extend along the signal line. Irrespective of the Examiner's contentions, applicants submit that Ogawa does not disclose or teach in the sense of 35 USC 103 that a dummy line is arranged in the plane of the signal lines and the data transfer lines and is formed between the signal lines and the data transfer signal lines, which are formed in the same plane. Accordingly, applicants submit that Ogawa fails to overcome the deficiencies of Kuwashiro in the sense of 35 USC 103 such that claim 5 and the dependent claims patentably distinguish thereover and should be considered allowable.

Additionally, applicants submit that in Kuwashiro, the dummy terminals are used for inspection terminals and Kuwashiro provides no disclosure or teaching regarding spark generation and the utilization of a dummy line for preventing disconnection, as described in the specification of this application.

With regard to the rejection of independent claim 11 and dependent claims based upon the combination of Moon et al in view of Ogawa, applicants note that the Examiner contends that a dummy line 136 is arranged between the signal lines 134 and the counter voltage supply signal line 128B. However, Moon provides no disclosure that the common voltage line 128B and the data line 134 are arranged in the same plane and that the dummy line 136 is arranged in the plane of the common voltage line and the data line and between the common voltage line and the data line and that the dummy line is formed so as to extend along the signal line, as recited in claim 11. Furthermore, Moon provides no disclosure concerning the distance of the data line 134 and the common voltage line 128B and it is not apparent that the problem of spark generation occurs or is overcome by the utilization of a dummy line. Thus, applicants submit that claim 11 and its dependent claims patentably distinguish over Moon in the sense of 35 USC 103 and should be considered allowable thereover.

With regard to the combination of Moon and Ogawa et al, as pointed out above, Ogawa fails to provide the claimed features of a dummy line between the signal line and common voltage signal line arranged in the same plane, such that the combination of Moon and Ogawa fail to provide the claimed features of claim 11 and the dependent claims and should be considered allowable thereover.

As to the further combination with Hayakawa et al concerning the utilization of a seal material, applicants submit that Hayakawa fails to overcome the deficiencies

of Kuwashiro, Moon and Ogawa as pointed out above and the combination fails to provide the claimed features. Accordingly, applicants submit that all claims patentably distinguish over the proposed combination of references in the sense of 35 USC 103.

With respect to the newly added claims, applicants submit that these claims recite features not disclosed or taught in the cited art, and when considered in conjunction with the parent claims, further patentably distinguish thereover. Thus, the newly added claims should also be considered allowable at this time.


In view of the above amendments and remarks, applicants submit that all claims present in this application should now be in condition for allowance and issuance of an action of favorable nature is courteously solicited.

Applicants note that also submitted herewith is an Information Disclosure Statement and consideration of the documents submitted is respectfully requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 501.43231X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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